

## STUDY GUIDE

## Chapter 1

### Problem Solving

In each of the following statements, a term has been scrambled. Unscramble the term and write it on the line provided.

1. \_\_\_\_\_ The steps needed to find the solution are usually obvious in an *sciereeex*.
2. \_\_\_\_\_ A process that uses certain skills to solve a problem is *tacilric kinthing*.
3. \_\_\_\_\_ An explanation based on many observations supported by experimental results is a *yethor*.
4. \_\_\_\_\_ A "rule of nature" that sums up related observations and experimental results to describe a pattern in nature is a *scenicifit wal*.
5. \_\_\_\_\_ An educated guess about the possible solution to a problem is a *pythoshise*.
6. \_\_\_\_\_ An idea, system, or structure that represents something that is being explained is a *domel*.
7. \_\_\_\_\_ A hypothesis can be tested by conducting an *expertemin*.
8. \_\_\_\_\_ The solution is not obvious and crucial information is missing in a *blepmor*.
9. \_\_\_\_\_ The process by which the senses are used to gather information is called *stiobanroev*.
10. \_\_\_\_\_ Physical science is concerned with the study of energy and *tramet*.
11. \_\_\_\_\_ A theory must be based on many observations and supported by *talexpermeni* results.
12. \_\_\_\_\_ Solving a problem involves finding missing *timrifonona*.

# REINFORCEMENT

# Chapter 1

## Problem Solving

Complete the following.

1. How does a problem differ from an exercise? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Identify the sense you would use to make each of the following observations.

- \_\_\_\_\_ 2. the distance between two points  
\_\_\_\_\_ 3. the loudness of a stereo system  
\_\_\_\_\_ 4. the saltiness of a stew  
\_\_\_\_\_ 5. the number of students in a classroom  
\_\_\_\_\_ 6. determining whether bath water was too hot or too cold  
\_\_\_\_\_ 7. determining whether milk in a container has soured  
\_\_\_\_\_ 8. the spiciness of a dinner

Identify the sense that each object listed is designed to help.

- \_\_\_\_\_ 9. hearing aid  
\_\_\_\_\_ 10. microscope  
\_\_\_\_\_ 11. thermometer  
\_\_\_\_\_ 12. ruler  
\_\_\_\_\_ 13. stereo headphones  
\_\_\_\_\_ 14. telescope  
\_\_\_\_\_ 15. stethoscope

Place the following terms in logical order by writing the numbers **1** through **4** in the space provided.

- \_\_\_\_\_ 16. theory  
\_\_\_\_\_ 17. scientific law  
\_\_\_\_\_ 18. hypothesis  
\_\_\_\_\_ 19. problem

20. What is an experiment? \_\_\_\_\_  
\_\_\_\_\_